

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-002543**Date Inspected:** 18-May-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Fu Yu Hong**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG**Summary of Items Observed:**

CALTRANS Quality Assurance (QA) Inspector, Alfredo Acuna was present for the fabrication scheduled for this project at the ZPMC facility in Shanghai, China for the San Francisco Oakland Bay Self Anchored Suspension Bridge.

The QA inspector performed 15 % ultrasonic verifications (UT) on the partial penetration weld (PJP) after ZPMC representative verifications were completed on the deck panel DP-075-001 weld joints 6 and 10. The QA inspector concurred with ZPMC on the overall locations and sizing of the areas identified with incomplete penetration. A location with depth of penetration with less than 80 % was reported on weld # 6. See UT report TL_6027 generated on this date.

The QA inspector witnessed repairs on the deck panel DP-075-001. The QA inspector observed that ZPMC was not using sheet metal plates over the grinding disc when removing at the weld toe the weld overlap; However, the base metal adjacent to the weld toe appears to be transitioned as per contract documents.

The QA inspector witnessed ZPMC representative Wang Wei performing magnetic particle testing (MT) on the weld repairs for the deck panel DP-075-001. Mr. Wang Wei verifications appear to be in compliance with the contract documents.

Tower Shop

The QA inspector observed ZPMC welder operators Mr. Xue Yian and Guo Guimei performing welding operations (filler passes) at the longitudinal stiffener splice weld joint # ESD1-SA77A/E-36A and ESD1-SA 77A/E-34A respectively following the approved welding procedure specification. Base metal was designated as A-709 Grade 50. ZPMC was using the automated submerged arc welding (SAW) process in the flat (1G) position with the 4.8 mm diameter electrode designated as designated as EM12K/AWS A5.17, brand name JW-3. The QA

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Inspector observed ZPMC QC inspectors verifying amperage, voltage, travel speed, preheat and heat interpass temperatures for the filler passes. The QA inspector observed that the welding parameters recorded by ZPMC approved Certified Welder Inspector Liu Hua Jie appeared to be in accordance with the contract documents.

Summary of Conversations:

As noted above.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By:	Acuna,Alfredo	Quality Assurance Inspector
Reviewed By:	Cuellar,Robert	QA Reviewer
